2011-17

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Second Year (Semester-IV)

December 2013 Examination

B.Sc. Medical Laboratory Technology (MLT)

Time : 2.30 Hrs. **Max. Marks : 80]**

Pathology

Q.P Code : AHS-107

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

LONG ESSAY **2 X 10 = 20 Marks**

1. Discuss automated tissue processor instrument, its overnight schedule, types of processing machine, and advantages.
2. Describe paraffin section cutting under the headings of setting the microtome, trimming and cutting sections. Add a note on floatation of sections on water bath.

SHORT ESSAY (Answer any Six) **6 X 5 = 30 Marks**

3. Ultra microtome.
4. Alum hematoxylins.
5. Describe the principle and uses of periodic acid Schiff stain.
6. Stains for fungi.
7. Perl's stain.
8. Two methods for removing formalin pigment from tissues.
9. Give five applications of computers in pathology laboratory.
10. ICD classification and coding.

SHORT ANSWERS (Answer any Ten) **10 X 3 = 30 Marks**

11. Name one special stain for demonstration of
    (a) Mycobacteria tuberculosis
    (b) Elastic Tissue
    (c) Glycogen.
12. Special stains to demonstrate fat on frozen section-name three.
13. Working principle of polarized light microscope.
14. Three uses of fluroscent microscope.
15. Name three mounting media used after staining.
16. Name three embedding media used for electron microscope tissue preparation.
17. Name three stains to demonstrate melanin.
18. List three types of microtome knives.
19. Three uses of frozen section.
20. Give the temperature of
    (1) Cryostat
    (2) Wax bath of tissue processing
    (3) Water bath for paraffin section cutting.
21. Describe rapid H&E stain for frozen section.
22. Three uses of microphotography.

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3-12-2013

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BIOCHEMISTRY

Q.P Code : AHS-105

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

LONG ESSAY **2 X 10 = 20 Marks**

1. Explain the Principle and uses of Spectrophotometry.
2. Write about the Chemistry, Sources, RDA, Biochemical functions and deficiency manifestations of Vitamin-A

SHORT ESSAY (Answer any Six) **6 X 5 = 30 Marks**

3. Define Lipoproteins? Classify them and write their functions.
4. Describe the Ketone body synthesis and break down.
5. What is GTT? Write the Indications, Precautions and Procedure to perform GTT.
6. Describe Urea cycle. Add a not on its disorders.
7. What are Isoenzymes. Give four examples with Biomedical importance
8. Describe β oxidation of fatty acids, taking Palmitic acid as example.
9. GOUT
10. Beer-Lambert's Law

SHORT ANSWERS (Answer any Ten) **10 X 3 = 30 Marks**

11. What are the causes of Fatty Liver?
12. Atherosclerosis.
13. Jaffe's Test.
14. Name three compounds derived from Cholesterol.
15. Write the reference range of

    (i) Blood urea (ii) Serum Creatinine (iii) Uric Acid
16. Write the Enzyme defect in the following conditions

    (i) Phenlyketonuria (ii) Lesh-Nyhan syndrome (iii) Alkaptonuria
17. Rothera's Test.
18. Write about the diagnostics and therapeutic uses of enzymes.
19. Daily requirement of (i) Vit-A (ii) Vit-D (iii) Vit-E
20. Essential Fatty acids.
21. Write the three irreversible reactions of Glycolysis cycle.
22. What is creatinine clearance.

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Microbiology

Q.P Code : AHS-109

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

LONG ESSAY **2 X 10 = 20 Marks**

1. Enumerate agents causing watery diarrhoea? Describe the laboratory diagnosis of cholera.
2. Enumerate the salmonella causing enteric fever? Describe the laboratory diagnosis of enteric fever.

SHORT ESSAY (Answer any Six) **6 X 5 = 30 Marks**

3. Standard test for syphilis.
4. Laboratory diagnosis in a suspected case of urinary tract infection.
5. Blood culture.
6. Infections caused by E.coli.
7. EL TOR Vibrius.
8. Salmonella food poisoning.
9. Bacillary dysentery-Laboratory diagnosis.
10. Weil's disease.

SHORT ANSWERS (Answer any Ten) **10 X 3 = 30 Marks**

11. TSI.
12. Name pathogenic spirochaetes.
13. Name four organisms causing urinary tract infection.
14. Name four non lactose fermenting organisms.
15. Pigments produced by pseudomona aeruginosa.
16. Cholera red reaction.
17. Two rapid tests for diagnosis of cholera.
18. Transport media for vibrio cholera.
19. Name three diseases caused by Klebsielia.
20. Nichols strain of treponema pallidum.
21. Name four culture media used for salmonella.
22. Name four serological tests used in diagnosis of leptospirosis.

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